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Training and Doctrine Command
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Safety
TRADOC SAFETY PROGRAM

Summary. This regulation prescribes policies, responsibilities, and procedures for the development, implementation, and evaluation of TRADOC safety programs.

Applicability. This regulation applies to TRADOC installations, service schools, tenant activities, and contractors operating on TRADOC installations.

Supplementation. Supplementation of this regulation is permitted but is not required. Supplementation requires prior approval from Commander, TRADOC, ATTN: ATOS, Fort Monroe, VA 23651-5000. If a supplement is issued, furnish two copies to Commander, TRADOC, ATTN: ATOS, Fort Monroe, VA 23651-5000.

Forms. "R" forms located at the back of this regulation are for local reproduction. Have them printed through your forms management officer.

Suggested improvements. The proponent of this regulation is the Command Safety Office. Send comments and suggested improvements on DA Form 2028 (Recommended Changes to Publications and Blank Forms) through channels to Commander, TRADOC, ATTN: ATOS, Fort Monroe, VA 23651-5000.

Distribution restriction. Approved for public release; distribution is unlimited.

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Chapter 1

Introduction

1-1. Purpose. To establish policies, procedures, and responsibilities for implementation of the TRADOC Command Safety Program and ensure protection of the force.

1-2. References. Required and related publications and referenced forms are listed in appendix A.

1-3. Explanation of abbreviations and terms. The glossary contains abbreviations and special terms used in this regulation.

1-4. Responsibilities.

a. Director, Command Safety Office (CSO) will-

(1) Report to Commander, TRADOC, through the

Chief of Staff, TRADOC.

(2) Serve as principal advisor to the CG, TRADOC and command staff on all safety and occupational health issues.

(3) Coordinate directly with higher headquarters, other MACOMs, other services, state/federal agencies and other institutions, associations, and nations. Coordinate as appropriate, with the Director of Army Safety (DASAF). Pass to DASAF, those issues which have significant Armywide safety and occupational health implications.

(4) Develop command safety and occupational health policy.

(5) Participate in DA-level special reviews, studies, and working groups; the Army Fuze Safety Review Board; Army System Safety Coordinating Panel Technical Subpanel; TRADOC Materiel Evaluation Committee; Army Explosive Safety Council; North Atlantic Treaty Organization (NATO) Range Safety Panel; TRADOC Test Schedule and Review Committee; and TRADOC Requirements Review Committee.

(6) Serve as the principal advisor to the TRADOC Executive Safety and Occupational Health Council.

(7) Direct central accident investigations (CAIs) as deemed appropriate.

(8) Review and evaluate TRADOC safety programs annually.

(9) Serve as the TRADOC Career Program (CP) Manager for CP 12 IAW AR 690-950.

(10) Maintain staff oversight for safety issues relating to environmental, fire protection, industrial hygiene, and other loss control elements.

(11) Establish and implement a TRADOC Safety

Awards Program to recognize TRADOC personnel and installations for safe performance.

(12) Establish and publish annual accident performance goals for subordinate elements.

(13) Represent TRADOC on all safety issues not listed above affecting or involving the command.

(14) Serve as the proponent for safety in training and leader safety awareness training (LSAT).

b. The Deputy Chief of Staff for Training (DCST) will-

(1) Integrate safety and risk management into training and leader development at TRADOC service schools and training centers.

(2) Integrate hazardous communication (HAZCOM) training into military training in accordance with (IAW) DOD 6050.5.

c. The Deputy Chief of Staff for Combat Developments (DCSCD) will integrate safety into combat developments at TRADOC service schools and training centers.

d. The Deputy Chief of Staff for Doctrine (DCSDOC) will integrate safety into doctrine at TRADOC service schools and training centers.

e. The Deputy Chief of Staff for Base Operations Support (DCSBOS) will-

(1) Provide technical advice on medical and occupational health aspects of safety issues.

(2) Administer the TRADOC Federal Employees' Compensation Act (FECA) Program.

f. Commanders, TRADOC installations and Commandants, TRADOC service schools will-

(1) Be responsible for the protection of all personnel, facilities, equipment, and materials.

(2) Develop and publish a comprehensive safety program directive.

(3) Ensure availability of adequate staffing and funds to support an aggressive safety program based on mission/functions requirements.

(4) Serve as the chairperson for the Safety and Occupational Health Council. Commanders may delegate this to the chief of staff or garrison commander.

(5) Designate in writing, a safety and occupational health manager responsible for exercising staff supervision of safety and health activities and all aspects of the TRADOC Safety Program.

(6) Consolidate safety personnel and resources into a single office table of distribution and allowance (TDA).

(7) Establish the installation branch safety office as a personal staff organization reporting directly to the installation commander on safety and occupational health issues. The installation chief of staff will provide supervision.

(8) Ensure coordination of branch school products relating to integration of safety and occupational health with the branch safety manager.

(9) Integrate safety and occupational health procedures and considerations, including risk management, into the development and employment of all service school products and branch training. Maintain oversight of branch-unique safety issues.

(10) Promote safety awareness by-

(a) Appraising existing conditions for hazards.

(b) Using or developing safe procedures to accomplish the mission.

(c) Including safety content in training.

(d) Insisting upon complete compliance to standards.

g. Installation safety managers will-

(1) Serve as the installation/branch safety manager (IBSM) at locations where a TRADOC branch school exists.

(2) Exercise staff oversight for the integration of risk management procedures into branch school mission domains, training operations, and products.

(3) Publish a directive that consolidates local safety and occupational health procedures into a single source publication for subordinate units/activities.

(4) Establish and implement a local awards program for organizational and individual awards. This includes establishment of funding requirements.

h. Branch safety managers not located on TRADOC installations will-

(1) Exercise staff oversight for the integration of risk management procedures into branch school domains, training operations, and products.

(2) Ensure safety support for base operations is provided by the host installation safety office.

(3) Publish a directive that consolidates local safety and occupational health procedures into a single source publication for subordinate unit/activities.

1.5. Policy.

a. Accident prevention is an inherent command

function. Protection of the force through accident prevention enhances the Army's ability to train, fight, and win with minimum cost to the nation. It also provides the leader with the necessary tools to keep soldiers safe and healthy, maintaining fighting morale.

b. TRADOC's goal is to develop highly motivated, skilled soldiers; airing leadership; and field-safe equipment. It is vital to train soldiers to tough realistic standards with the knowledge and skills required to assess and manage risks to an acceptable level. This will maximize combat effectiveness while minimizing losses on the battlefield.

c. Safety and occupational health services relating to Standard Army Safety and Occupational Health (SASOH) inspections, accident reporting, abatement of hazardous conditions, etc., are base operations (BASOPS) functions and, as such, are the function of the host installation safety office.

1-6. Safety program evaluations. An evaluation is a tool to determine if the safety program is effective and in compliance with applicable policies and thereby provides assistance to Commanders in managing their safety programs. Current policies, accepted management practices, and positive actions taken by other installations, MACOMs, etc., which have solved the same or similar problems are the basis for TRADOC recommendations. Acceptance or implementation of recommendations is the commander's decision.

a. CSO will conduct evaluations of subordinate installation/activity safety and occupational health programs annually.

b. Installations will receive notification of the impending evaluation at the beginning of each fiscal year.

c. To preclude duplication of effort, installations receiving an Aviation Resource Management Survey (ARMS) at any time during the fiscal year will not be

evaluated on aviation safety during the CSO's evaluation.

d. The U.S. Army Environmental Hygiene Agency may evaluate occupational health elements during the annual evaluation. Commanders will receive a single report containing consolidated findings/recommendations.

e. Evaluations will be based on current regulatory requirements. Prior to inspection, CSO will furnish any additional information to the installation.

1-7. Safety and Occupational Health Advisory councils.

a. Each installation/school will establish a Safety and Occupational Health Advisory Council.

b. Councils will meet at least semiannually.

c. Commanders may establish subordinate safety committees down to brigade/directorate levels or lower.

d. The aviation safety officer will be a member of the installation Safety and Occupation Health Advisory Council. The IBSM will be a member of the Aviation Safety Council.

e. Keep written records of meetings to satisfy Army and Occupational Safety and Health Act (OSHA) requirements.

1.8. Deviations. When necessary to deviate from this regulation, send a written request to Commander, TRADOC, ATTN: ATOS, Fort Monroe, VA 23651-5000 prior to initiating deviation. Identify specific conflict(s) with this regulation and state reasons for the request and alternate measures.

Chapter 2

Ground Accident Reporting and Records

2-1. General. TRADOC installations, service schools, and activities must comply with the requirements of AR 385-40 and this regulation. Aviation accident reporting requirements are found in paragraph 3-2e, below.

2-2. Accountability.

a. Injuries to military personnel in a temporary duty (TDY) status at a TRADOC organization will be recorded by the TRADOC installation provided the TDY orders state the individual will be TDY for over 30 days. If the individual is TDY for less than 30 days, the TRADOC installation prepares DA Form 285; however, identify the individual's home station in blocks 3a, 18, and 71 of the form. In either case, furnish a copy DA Form 285 to the individual's home station.

b. When a central motor pool furnishes a vehicle to drivers from organizations other than TRADOC, charge the driver's organization with the accident. This requires the installation activity to break out mileage to ensure the driver's organization gets credit for all mileage driven during the quarter.

c. Report General Services Administration (GSA) vehicle accidents which exceed the Army motor vehicle accident cost criteria.

d. Charge damage to vehicles and equipment loaned to a non-TRADOC organization to the using organization even if exposure mileage cannot be recorded by the using organization. Responsibility for completion of DA Form 285 rests with the using organization.

2-3. Exposure Report (RCS ATOS-1).

a. Submit TRADOC Form 385-2-1-R-E to HQ, TRADOC (ATOS-T) by the 20th day of the month following the end of each quarter. This form is located at the back of this regulation. Have it reproduced locally through your forms management officer.

b. Transmit the report on the professional office system (PROFS) network. If PROFS is not available, mail the report to HQ, TRADOC (ATOS-T) NLT 20 days after the end of the quarter.

c. Civilian exposure data will not include nonappropriated fund (NAP), contractor, or non-TRADOC personnel.

2-4. Accident investigation.

a. Conduct an in-depth accident investigation using Centralized Accident Investigation Ground (CAIG) procedures for all class A on-duty accidents, class B on-duty training accidents, or special case accidents as determined by Director, CSO. Forward the original and one copy of all CAIGs to Commander, TRADOC, ATTN: ATOS, Fort Monroe, VA 23651-5000 for processing NLT 45 days after the accident (RCS exempt: AR 335-15, para 5-2e(7)). The installation commander or school commandant must review and sign formal CAIG reports. Appendix H outlines CAIG procedures.

b. Safety managers will support the Civilian Personnel Office's efforts to reduce civilian injuries/illness. Safety personnel will be members of the installation FECA working group.

2-5. Accident reporting.

a. IBSMs will establish a local system for receiving accident feeder information. As a minimum, feeder information includes-

- (1) Military police blotters (accidents only).
- (2) Military police traffic accident reports.
- (3) Serious incident reports (accidents only).
- (4) Estimated cost of damage (ECOD) reports.

(5) Admission and disposition (A&D) sheets.

(6) Fire reports.

(7) SF 91s (Operator Report on Motor Vehicle Accident).

(8) Staff Judge Advocate claim data (accidents only).

(9) Marine casualty reports.

(10) Casualty reports.

b. Gather, track, and analyze near miss incidents and class D accidents, to include range and live fire training incidents, to establish trends and identify problem areas for use in developing countermeasures.

c. Installation safety offices equipped to electronically transmit DA Form 285 (RCS CSOCS-308) to report accidents to the U.S. Army Safety Center (USASC) should do so. If unable to electronically transmit the accident report, provide the original, hard-copy version of DA Form 285 to USASC. (See para 1-8, above for deviations.)

d. When a class A or B accident occurs on a TRADOC installation/activity, the safety manager will immediately notify telephonically the CSO, DSN 680-2119/5901, or after duty hours, the Emergency Operations Center, DSN 680-2256 (RCS ATOS-2, TRADOC serious Accident Report). use TRADOC Form 385-2-3-R located at the back of this regulation for notification. The form is locally reproducible; have it printed through your forms management officer. Use electronic messages for supplemental reports; however, make initial notification telephonically. The TRADOC installation/activity experiencing a class A or B accident is responsible for notifying USASC and other involved MACOMs.

e. Installation commander or school commandant will review and sign all class A and B accident reports on

DA Form 285, block 69. Send a copy of all class A and B accident reports to Commander, TRADOC, ATTN: ATOS, Fort Monroe, VA 23651-5000 within 45 days of occurrence (RCS CSOCS-308).

Chapter 3

Aviation Safety

3-1. Responsibilities.

a. Director, CSO exercises staff oversight of aviation safety and Commanders Aviation Accident Prevention Program plans within TRADOC.

b. IBSMs will-

(1) Ensure airfields at their installations have a full time, school trained aviation safety officer (ASO) assigned to a primary duty position. An ASO for a flying unit assigned to the installation may hold this position.

(2) Be briefed on results of semiannual aircraft accident prevention surveys for organization/flight facilities within their jurisdiction.

(3) Provide "generic" safety promotional items to the ASO for distribution IAW local procedures.

(4) Review aviation-related contracts for safety issues prior to award.

(5) Establish a primary duty position for a full-time, school trained ASO for the installation airfield (if applicable) or for detachments with a TDA or actual pilot strength of five or more.

c. Aviation unit commanders will-

(1) Comply with requirements of ARs 95-1, 95-3, 385-95, and other applicable directives.

(2) Ensure ASO programs have adequate resource

support to include any aviation-specific safety awards.

d. Aviation safety officers will-

(1) Manage the safety program at the airfield/unit and comply with ARs 95-1, 95-3, 385-95, and other applicable directives.

(2) Be the commander's representative for all aviation safety matters. Provide guidance and recommendations to all aviation activities and units on the installation.

(3) Ensure the airfield/unit safety bulletin boards and aviation safety functional files are maintained IAW AR 25-400-2.

(4) Act as recorder for aviation safety councils.

(5) Establish an ongoing analysis program to identify current and projected aviation safety issues and recommend solutions to those issues.

3-2. Policy.

a. Commander's Aviation Accident Prevention Program.

(1) All aviation unit commanders will establish a Commander's Aviation Accident Prevention Program. The program will include a plan that reflects where the commander's emphasis will be in safety and will be tailored to the unit. The unit standing operating procedure (SOP) should be a basic element of the program. The plan should not be confused with the SOP and not cover the same things. The Plan will state what will be done; the SOP tells how it will be done.

(2) A commander can endorse a higher headquarter's plan and declare it as his or her plan. However, some modification must be done to tailor the plan to the unit considering the unit structure, mission, environmental factor, etc.

b. Aviation safety meetings.

(1) Monthly meeting minutes will include a roster of personnel absent as well as subjects covered. Devise and implement a make-up system. Subject matter experts (e.g., Air Force weather personnel, flight surgeons) will conduct required training, such as weather briefings and aeromedical training. All crewmembers and other assigned personnel must participate in required classes, Combine aviator and crewmember classes as appropriate.

(2) Aviation unit commanders will develop a means to deal with personnel who routinely miss aviation safety meetings.

(3) The IBSM, or their designated representative, will attend aviation safety council meetings and the appointed ASO will be a regular member of the Installation Safety and Health Council.

c. Foreign object damage (FOD).

(1) Because of FOD and personal injury potential, jewelry (rings, watches, necklaces, etc.) will not be worn when inspecting or maintaining aircraft.

(2) With the exception of helmets and cold weather headgear, headgear will be removed before going on the flight line.

d. Risk management.

(1) Commanders are responsible for ensuring the development and implementation of risk management procedures in all exercises and mission plans. The aircrew mission briefing will incorporate the risk assessment and countermeasures.

(2) Units may develop a risk assessment sheet or check list for mission planning. The assessment should include all elements which can affect the mission

including crew mix weather, type of mission, etc., and should be designed to address variables which can change during different phases of the exercise/mission. An analysis of specific hazards must be completed, and effective countermeasures developed as part of the risk management plan.

e. Post aviation accident actions. Each installation will establish procedures to-

(1) Comply with the requirements of AR 385-40.

(2) Notify HQ, TRADOC (ATOS-A) as soon as possible whenever a TRADOC aircraft is involved in a class A-C accident or whenever a class A-C aviation accident occurs on a TRADOC installation, regardless of who owns the aircraft. Initial notification will be telephonic to the CSO (DSN 680-3217) or Emergency Operations Center (DSN 680-2256) after duty hours. Follow-up information via PROFS will include the following

(a) Date/time of accident.

(b) Location of accident.

(c) Owning organization.

(d) Type of aircraft.

(e) Number of injuries/fatalities.

(f) Extent of damage.

(g) Synopsis of accident.

(h) Other remarks. (For example, crew experience, weather, night vision goggles (NVG) used, previous accidents of crew, collateral accident investigation requested, etc.). This is in addition to the requirements outlined in AR 385-40 for accident notification.

(3) Have blood and urine samples taken from

crewmembers involved in class A-C aviation accidents immediately by the appropriate medical facility; process using formal chain of custody procedures.

(4) Clear aircraft damaged or suspected of damage for flight by qualified maintenance personnel. Secure maintenance records by the unit for the investigation board.

(5) Secure the accident site. Develop procedures for both short- and long-term security of an aviation accident site and coordinate with military police and local law enforcement activities.

(6) Maintain a listing of personnel qualified IAW AR 385-40 to serve on an Army aircraft accident investigation board. The list should include the aviator's name, rank, and aircraft qualifications. There is no requirement to publish aviation accident investigation appointment orders until an accident occurs. Where necessary, develop procedures for mutual support between installations for aviation accident investigation boards. Address matters such as travel and per diem payments in the procedures. Board presidents act on behalf of their appointing authority and can make determinations on the scope, technical assistance, and support needed when appropriate.

f. General aviation safety. Passengers are to be seated and restrained by seat belts and, if installed, shoulder harnesses during takeoffs, landings, and periods of turbulence.

g. Annual aviation safety day. Annual aviation safety day may be held in conjunction with the installation/post safety awareness day.

Chapter 4

Branch Safety Proponency

4-1. General. The objective of branch safety proponency is to identify issues and correct problems that affect a

soldier's safety. It includes integrating safety into TRADOC mission domains of doctrine, training, leader development, organizational design, and materiel requirements (DTLOM); monitoring the safety performance of branch modification table of organization and equipment (MTOE) and TDA units and school products Armywide; and developing branch safety lessons learned and countermeasures.

4-2. Responsibilities.

a. Director, CSO will-

(1) Review and provide recommendations on proposed TRADOC policies and procedures for DTLOM.

(2) Task and track action responsibility within HQ, TRADOC to resolve/correct safety issues and deficiencies in DTLOM.

b. The DCST will-

(1) Develop policies and procedures to integrate safety into systems approach to training (SAT), systems training integration processes, and all training and evaluations. Ensure leader development safety training includes instruction on risk management.

(2) Ensure instructor training and instructor development courses include safety training.

(3) Coordinate training and leader development issues and documents with CSO for review of safety aspects.

c. The DCSCD will-

(1) Develop policies and procedures to integrate safety into the combat developments process (e.g., manpower and personnel integration (MANPRINT)).

(2) Coordinate combat development issues and documents with the CSO for review of safety aspects.

d. The DCSDOC will-

(1) Develop policies and procedures to integrate safety into the doctrine developments process.

(2) Coordinate doctrine issues and documents with the CSO for review of safety aspects.

e. Commanders, TRADOC installations and Commandants, TRADOC service schools will-

(1) Execute the responsibilities in AR 385-10 for integrating safety into proponent mission domains (i.e., DTLOM). Execute, as applicable, the responsibilities of the combat developer, user test agency, training developer, and AR 385-16, paragraph 4r(4), for proponent systems and mission areas.

(2) Develop local policies and procedures, and assign responsibilities to integrate safety into DTLOM.

(3) Maintain a list of high risk training courses for more frequent monitoring and review to ensure adherence to standards. Include safety and risk management instruction in each leader development course.

(4) Conduct risk assessments

(a) Perform training safety risk assessments based on the credible scenario and assign residual risk assessment codes (RAC) of EXTREMELY HIGH, HIGH, MEDIUM, or LOW to lesson outlines/plans during SAT design and development phases (see tables 4-1 through 4-3). Also, perform or review risk assessments on existing lesson outlines/plans when they are revised or reprinted.

(b) Develop a position on materiel developer's system safety risk assessments (SSRA) for proponent materiel systems and material changes. Use tables 4-1 and 4-2 and the risk decision authority matrix approved

by the Army acquisition executive or designated risk acceptance authority. The approved matrix will usually be table 4-4 (see AR 385-16, app B).

(c) Paragraph 4-3, below specifies risk acceptance decision authority.

(d) Use table 4-3 for any category of training (e.g., bridging operations, field artillery live fire, signal).

(5) Develop and disseminate branch safety essential elements of information (EEIs). Identify, analyze, and take action (e.g., develop countermeasures) on branch safety issues and accident experience worldwide. Integrate safety countermeasures and lessons learned into DTLOM and appropriate data bases. Track hazards of proponent training and materiel systems.

(6) Address safety in internal and external evaluations of service school products, branch operations, and proponent materiel systems (e.g., post fielding assessments).

(7) Initiate necessary materiel changes to improve safety and health aspects of proponent systems.

(8) Monitor safety of operations and procedures in range and live-fire training for proponent weapons systems and mission areas to assess the adequacy of Army range safety standards and training criteria.

(9) Address safety and health issues in test and evaluation plans and reports for proponent systems.

(10) Include safety as an agenda item in branch unit commander's conferences and joint advisory boards.

(11) Integrate appropriate hazard communication standard training into all TRADOC resident training courses except those for the Defense Language Institute and U.S. Army School of the Americas.

e. Branch safety managers will-

(1) Be the staff POC for safety issues regarding branch MTOE and TDA unit operations, service school products, and proponent materiel systems.

(2) Include branch safety responsibilities, knowledges, and skills in job descriptions and performance standards for safety professionals that support the school. Individual development plane should include appropriate training (e.g., branch military training, combat developers' course, training developers' course, MANPRINT staff officer's course).

(3) Advise and assist the branch school commandant in executing his or her branch safety proponent program responsibilities.

(4) Review RACs for lesson outlines developed by the service school. Review, as a minimum, the conduct of all EXTREMELY HIGH and HIGH risk training.

(5) Ensure safety training is provided to combat developers, training developers and evaluators, school instructors, and cadre.

4-3. Risk management. TRADOC service schools and major subordinate commands (MSCs) will apply risk management techniques to eliminate or control hazards associated with proponent products. During the design of materiel systems and training tasks, MSCs will identify, evaluate, and develop a position on the acceptability of the safety risks of residual hazards. Formally document risk decisions. Risk decision signature authority is as follows:

a. Training safety risk assessments. The CG, TRADOC, retains signature authority to approve EXTREMELY HIGH level training residual risks. The proponent commander or commandant will sign and forward to HQ, TRADOC (ATOS) his or her position on acceptability of EXTREMELY HIGH residual risks. Proponent commanders or commandants have signature

authority for HIGH, MEDIUM, and LOW level training risks. They may delegate signature authority for MEDIUM and LOW level risks.

b. System safety risk assessments. CG, TRADOC, retains signature authority for HIGH risk SSRAs, Part III, Recommendations by the Combat Developer, IAW AR 385-16, paragraph 4m(2), figure 1. The proponent commander or commandant will sign and forward to HQ, TRADOC (ATOS) his or her position on acceptability of HIGH residual risks. Proponent commanders or commandants have signature authority for the TRADOC position on MEDIUM and LOW risk SSRAs. The proponent commandant or commander may delegate signature authority for LOW risk SSRAs to the Director of Combat Developments.

c. In the absence of the person with signature authority, the person designated acting signature authority may approve the risk assessment or school position on residual risks.

4-4. User testing. All tests and pretests involving soldiers require safety releases. Proponents will-

a. Provide a safety release recommendation and request a user test safety release from U.S. Army Test and Evaluation Command (TECOM), ATTN: AMSTEST, Aberdeen Proving Ground, MD 21005-5055 for TRADOC-sponsored Concept Evaluation Programs, customer tests, non-materiel force development tests, and experimentation user tests. (Note: TECOM will request all other safety releases.)

b. Obtain a safety release from the branch safety office prior to pre-test troop training for local tests, experiments, appraisals, and demonstrations involving troops.

Chapter 5

TRADOC Safety Awards Program

5-1. General. Safety awards programs recognize organizations and individuals which significantly contribute to accident prevention, thereby, improving TRADOC operations. Safety awards are recognized as an essential part of an effective safety program.

5.2. Responsibilities.

a. Director, CSO will-

(1) Provide TRADOC safety input to the Army Communities of Excellence Program.

(2) Comply with AR 672-74, where applicable.

b. IBSMs will-

(1) Establish and implement a local safety awards program for organizations and individuals IAW AR 672-74 and this regulation. (2) Establish funding requirements to support safety awards/promotional programs.

5-3. TRADOC Safety Awards-Ground.

a. Recognizes installations and other TRADOC activities for meeting goals and making significant contributions to the Army safety program and provides a quantitative system of evaluation. Installations and other TRADOC activities with similar missions and personnel strengths compete for these awards. Evaluation scheme will be objective and will be provided to the installations prior to the beginning of the fiscal year. Both accident experience and program management will be addressed.

b. CSO establishes accident performance goals for TRADOC prior to each fiscal year. Goals are set in four areas: Army motor vehicle (AMV) accidents, military disabling injuries (MDI), aviation accidents, and lost time FECA claims. Goals will be expressed as rates. Rates used for the TRADOC safety awards program will be "TRADOC" only.

c. The program management portion of the evaluation will address both the results of the annual safety program evaluations and accomplishments of programs in areas of special emphasis identified by the CSO at the beginning of the fiscal year.

d. TRADOC installations and other TRADOC activities are categorized as small/other, medium, large, and extra large (see table 5-1).

e. First place winners in each category receive the TRADOC Commander's Safety Award of Honor. Second place winners receive the TRADOC Commander's Safety Award of Merit.

5-4. TRADOC Safety Awards-Aviation

a. DA and TRADOC Commander's Aviation Accident Prevention Awards are presented to selected TRADOC units for outstanding achievement in aircraft accident prevention during the previous fiscal year.

(1) Units will submit nominations to Commander. TRADOC, ATTN: ATOS-A, Fort Monroe, VA 23651-5000 NLT 15 December each year (RCS exempt: AR 335-15, para 5-2h). Nomination format is at appendix G.

(2) The TRADOC Aviation Officer reviews nominations and recommends selection to CSO. AR 672-74 specifies DA awards criteria based upon the following:

(a) Unit class A, B, and C aircraft accident experience (defined by AR 385-40 and UPDATES published by USASC).

(b) Annual accident prevention inspection evaluations conducted by HQ, TRADOC.

(c) Compliance with aviation safety directives.

(d) Flying violation reports.

(e) Aviation maintenance management and quality control.

(f) Improvements in aircraft accident experience from previous years.

(3) TRADOC flying clubs maybe nominated for this award based on the above requirements.

b. The LTG Allen M. Burdett Jr., Daedalian Foundation Trophy for Army Aviation Safety is sponsored by Daedalian Foundation, a charitable, nonpolitical, nonprofit organization of the Order of Daedalians. A permanent trophy provides recognition for winners of the award. It is appropriately inscribed and placed in the custody of the winning unit throughout the year following presentation. This award will be presented to the aviation training base unit.

(1) Army aviation training base units of flight or division level at Forts Eustis, Rucker, and Huachuca shall participate in the Daedalian Flight Safety Trophy Program. Encourage other aviation training base units (e.g., Apache Training Brigade, Eastern/Western Army National Guard Aviation Training Site) to participate.

(2) Submit aviation training nominations to Commander, TRADOC, ATTN: ATOS-A, Fort Monroe, VA 23651-5000 NLT 15 December of each year (RCS exempt: AR 335-15, para 5-2h).

(3) The winning unit will be selected by the CSO and coordinated with the Deputy Chief of Staff for Training.

(4) The CSO will submit the following information to the National Adjutant, the Order of Daedalians, National Headquarters, Building 1635, Kelly Air Force Base, TX 78241-5000 prior to 15 January of each year (RCS exempt: AR 335-15, para 5-2h):

(a) Official unit designation.

(b) Address and POC phone number.

(c) Sufficient descriptive information concerning the winning unit so the National Adjutant can draft a citation for the award.

(d) Information concerning the date, time, and location of the award ceremony.

(5) The installation/branch safety office will coordinate with the unit currently possessing the trophy to forward it to the winning unit. If mailed, the trophy will be placed in its specific container and insured for no less than \$2,000. The winning unit will have the trophy plate appropriately engraved and will send the receipt for engraving to the National Adjutant for reimbursement.

(6) Winning the Daedalian Foundation Trophy Award requires the professionalism, dedication, and support of all unit personnel. A CG, TRADOC representative will present the trophy to the winning unit, funds permitting. Extensive publicity for the award is encouraged.

5-5. TRADOC Certificate of Achievement in Safety.

a. Recipients can be TOE or TDA detachments, company-size units, battalions, or equivalent; brigades or equivalent; installations or activities; U.S. Army military personnel, DA employees, or personnel working with and under TRADOC operational control.

b. An individual or organization must make valid contributions to the TRADOC accident prevention effort to be eligible for the certificate.

c. Forward nominations containing narrative description of achievements through the chain of command to Commander, TRADOC, ATTN: ATOS, Fort Monroe, VA 23651-5000.

5-6. Use of promotional items. The use of promotional items to recognize safe performance is encouraged. The use of incentive/promotional items can substantially contribute to accident prevention programs. AR 385-10 authorizes use of promotional items and ARs 672-5-1 and 672-20 authorize their purchase.

a. Promotional items for safety must be distributed for valid reasons, for actions observed, and not with such frequency that they lose meaning.

b. The safety manager must approve purchase of these items.

c. Clearly identify all items as safety items via printing, logos, or other means.

d. Use small, inexpensive items to recognize day-to-day safe performance. These items should not exceed \$15.00 in cost. Examples are pencils, pens, gym bags, key chains, cups, etc. The safety manager must approve distribution schemes.

e. Use items costing less than \$50.00 to recognize significant contributions that have a positive effect on the safety of an organization. Examples are pen and pencil sets, jackets, calculators, etc. The safety manager must approve distribution of these items on a case-by-case basis.

f. Promotional items are not recorded on property books. For this reason, installation/branch safety offices (IBSOs) must secure these items and establish internal controls.

g. Compliance with the above criteria will be an item of inspection during CSO safety program evaluations.

Chapter 6

Range Safety

6-1. Responsibilities.

a. Director, CSO, in conjunction with branch proponent, will-

(1) Evaluate worldwide Army range accident data to identify range hazards.

(2) Develop safety lessons learned.

(3) Assess the adequacy of range safety standards and training safety criteria, and develop countermeasures.

(4) Assist using units/agencies in the risk management of range and live-fire operations.

b. Installation commanders will execute the applicable safety responsibilities in ARs 40-46, 75-1, 210-21, 385-10, 385-62, 385-63, and TRADOC Reg 700-2.

c. Installation range control officers will-

(1) Be responsible for the overall operation of the range control organization in its implementation of the range safety program.

(2) Maintain coordination with the IBSO on all safety matters relating to range and live-fire operations.

(3) Develop a range safety directive, and ensure all ranges have SOPs.

(4) Develop and implement an on- and off-post range safety educational program in coordination with the IBSM, public affairs officer (PAO), quality assurance specialist of ammunition surveillance (QASAS), provost marshal, and local explosive ordnance disposal (EOD) unit commander.

(5) Ensure selected range control personnel receive range safety training. At least one member of the range control organization should be a graduate of the Army

Range Safety Course. When unexploded ordnance (UXO) recognition training program is implemented, at least one member of the range control organization, and other appropriate personnel, should be UXO qualified through training provided by EOD.

d. IBSMs will-

(1) Provide staff oversight on integrating safety and safe weapons handling into the local range program.

(2) Monitor cadre/staff instruction to ensure all instructors receive training in range hazards before teaching students or operating a range.

(3) Review and comment on new and revised installation range safety directives and SOPs.

(4) Monitor UXO training, developed and conducted by the local EOD unit commander in coordination with appropriate staff agencies (e.g., range manager, provost marshal, director of installation support (DIS)).

(5) Ensure safety and range professionals receive range safety education. At least one member of the IBSO will be a graduate of the Army Range Safety Course. At least one member of the IBSO should be UXO qualified through training provided by EOD.

(6) Inspect range facilities and live-fire training areas IAW AR 385-10, paragraph 4-1a(1). Recommend closure of ranges/training areas when warranted by safety considerations.

(7) Assist in safety planning and review of ranges designated for construction, modification, rehabilitation, or changes in use.

(8) Assist range control officer and PAO in developing and implementing an on- and off-post range safety educational program.

(9) Review and comment on waivers to AR 385-62

and/or AR 385-63 before submission to approving authority. Ensure each waiver contains risk assessment.

6-2. Accident reporting. Report any accident caused by firing of weapons system(s) that would indicate inadequacy of the range safety provision of this regulation, AR 385-62 and/or 385-63, to Commander, TRADOC, ATTN: ATOS, Fort Monroe, VA 23651-5000 IAW paragraph 2-5, above (RCS CSOCS-308).

Chapter 7

Explosive Safety

7-1 Responsibilities.

a. Director, CSO will--

(1) Serve as the TRADOC point of contact to the U.S. Army Technical Center for Explosive Safety (USATCES).

(2) Serve as the alternate member of the DA Explosives Safety Council (DAESC).

b. Commanders, TRADOC installations will--

(1) Execute the applicable responsibilities of ARs 75-1, 385-10, 385-26, 385-60, 385-62, 385-63, 385-64, and TRADOC Reg 700-02.

(2) Develop and publish appropriate safety procedures for receiving, storing, issuing, handling, transporting, and disposing of ammunition.

(3) Ensure request for waiver and/or exemption, to include risk analysis, are submitted when compliance with safety standards in AR 385-64 and TRADOC Reg 385-1 (as appropriate) cannot be achieved. Submit requests for exemptions and/or waivers to Commander, TRADOC, ATTN: ATOS, Fort Monroe, VA 23651-5000. Review exemptions annually.

(4) Maintain established quantity-distance (Q-D) arcs on installation master planning maps. Update installation copy of site plan safety submissions with "as built" drawings and records.

(5) Approve pyrotechnic displays and use of explosives in connection with public demonstrations, exhibitions, and celebrations.

(6) Request guidance from Commander, TRADOC, ATTN: ATOS, Fort Monroe, VA 23651-5000 for circumstances not specifically addressed in this regulation or applicable ARs. Submit a detailed map (or aerial photo) of the ammunition and explosives operations site and the surrounding area. Include a narrative description of the conditions requiring resolution.

c. Commander, U.S. Army Ordnance Missile and Munitions Center and School (USAOMMCS) will appoint an individual in the grade of O-6 or above to serve as principal TRADOC member of DAESC.

d. IBSMs will-

(1) Monitor all installation operations for compliance with explosive safety standards.

(2) Assist units in determining Q-D requirements with ammunition supply point (ASP) personnel.

(3) Evaluate and make recommendations for approval of requests for explosives safety waivers and exemptions.

(4) Review explosives safety actions before forwarding to HQ, TRADOC (ATOS) to ensure operational needs and safety implications are clearly defined and projected requirements are stated.

(5) Inspect ASP facilities for special hazard facilities/operations IAW AR 385-10, paragraph 41a(1).

(6) Ensure arms rooms are inspected by personnel familiar with applicable requirements (e.g., unit collateral duty safety officer).

(7) Assist tenant units and site commanders regarding explosives safety program requirements.

(8) Review QASAS quarterly magazine inspection reports. Track abatement actions on explosives safety deficiencies.

(9) Participate in preparation of site and safety plans for submission for explosives operations and facilities. After review, forward to Commander, TRADOC, ATTN: ATOS, Fort Monroe, VA 23651-5000, at least 90 days prior to desired construction start date.

(10) Maintain records of annual review of exemptions by installation commander IAW AR 25-400-2.

(11) Ensure safety professionals attend an approved explosives safety course as required to support installation/tenant unit missions. At least one member of the IBSO should be a course graduate. Approved explosives courses are available from U.S. Army Defense Ammunition Center and School (USADACS).

(12) Evaluate and make recommendations for approval of use of explosives and pyrotechnics in public demonstrations, exhibitions, and celebrations.

e. Commanders of ammunition storage sites will-

(1) Coordinate with the IBSO, conditions that require DoD Explosives Safety Board (DDESB) submissions.

(2) Initiate and forward requests for waiver/exemption to the CSO.

(3) Provide the following items for review during explosives safety inspections:

(a) A complete inventory by storage facility showing Department of Defense Ammunition Code (DODAC), nomenclature, quantity, and total net explosives weight.

(b) The latest lightning protection system inspection report furnished by Directorate of Installation Support (DIS). Semiannual inspections of all lightning protection systems are required.

(c) Copy of work orders submitted for corrections of safety deficiencies.

f. DISs will-

(1) Initiate to the IBSO, an official notification of need and request for assistance in siting and layout of projects requiring DDESB approval. Participate in siting and preparation of all site plans.

(2) Maintain established Q-D arcs on installation master planning maps.

7-2. Use of explosives and pyrotechnics in public demonstrations, exhibitions, and celebrations.

a. Use of pyrotechnic displays and/or explosives in connection with public demonstrations, exhibitions, and celebrations requires HQ, TRADOC (ATOS) approval. Compliance is required with all applicable laws and regulations. Prior to forwarding to HQ, TRADOC (ATOS) for approval, the IBSM will coordinate the action with Staff Judge Advocate (SJA) and PAO. Appendix B outlines procedures for evaluating use of explosives and pyrotechnics in public demonstrations. There is no requirement for HQ, TRADOC approval of civilian contractor (defense contractor) use of explosives or pyrotechnics in connection with public demonstrations, exhibitions, and celebrations.

b. Participation of personnel. DA policy is that U.S. Army military or civilian personnel will not handle, transport, store, set up, fire, detonate, or police up

military and/or commercial explosives or pyrotechnics for public demonstrations, exhibitions, and celebrations conducted by the public. Use of military explosives and/or pyrotechnics by U.S. Army military or civilian personnel to include handling, transporting, storing, setting up, firing, detonating, or policing up, on other than military property, even if such events are conducted by the military, is discouraged. Use of antique weapons not routinely fired is prohibited, including their use for saluting. Other restrictions contained herein do not apply to routine saluting. Routine saluting will be interpreted as rendering of explosive salutes using artillery in conjunction with formal military events following military protocol on military property. Saluting at public events on other than military property should only be granted in those rare instances when such an exception is clearly warranted.

c. Installation commanders may approve Army personnel to handle or activate certain items involved in contractor demonstrations. Approval will be based upon requirements in appendix B.

7-3. Transportation and field/temporary storage of ammunition.

a. Q-D requirements apply to field/temporary storage of ammunition and explosives.

b. Observe special requirements specified in applicable Army, Federal, state, and local regulations, concerning mechanical condition, refueling, placarding, and marking of vehicles.

7-4. Site plans and safety submissions.

a. Prepare site plans and safety submissions IAW ARs 385-60 and 385-64.

b. Forward original and two complete copies of site and plan safety submissions through channels to Commander, TRADOC, ATTN: ATOS, Fort Monroe, VA

23651-5000 (RCS exempt: AR 335-15, para 5-2i) for submission to Director, U.S. Army Technical Center for Explosives Safety, ATTN: SMCAC-ES, Savanna, IL 61074-9639.

7-5. Waiver/exemption requests. Request waivers exemptions only after every reasonable and prudent effort has been made to eliminate the nonstandard condition. Requests for waivers/exemptions will cover only one type of deviation at a single installation but may include all cases of one type of deviation at the installation. Submit all violations of on-post and off-post explosives Q-D safety criteria in a single, consolidated request. Waivers may be modified or made subject to specific restrictions or limiting conditions, incidental to review and approval action. Failure to comply with restrictions, or incidents arising from operations or conditions, covered by the approved waiver, invalidates the waiver until reinstated by the appropriate waiver authority. Advise HQ, TRADOC (ATOS) when a waiver is cancelled due to corrective action being taken before the waiver expiration date. Waivers expire at the close of business of the expiration date specified on the waiver request. Renewal requests for waivers will show that all practicable means to correct the conditions which required original waiver were exhausted. Process exemption and waiver requests IAW appendix C.

Chapter 8

Motor Vehicle Accident Prevention Program

8-1. General. This chapter establishes requirements for the TRADOC Motor Vehicle Accident Prevention Program. Motor vehicle accidents are the number one killer of soldiers. Driver error causes most motor vehicle accidents. Proper selection, training, and supervision of drivers will help to prevent these errors.

8-2. Responsibilities.

- a. Commanders, TRADOC installations will-

(1) Comply with AR 385-55.

(2) Develop and prescribe local procedures for the safe operation of motor vehicles.

(3) Develop and execute training, education, and motivation programs for motor vehicle operation.

b. ISBMs will--

(1) Provide staff oversight of the installation Motor Vehicle Accident Prevention Program.

(2) Collect, analyze, and evaluate motor vehicle and accident data to identify where accident prevention efforts must be focused.

8-3. Army Driver Improvement Program (ADIP).

a. The ADIP consists of 12 driver behavior-oriented videotape modules specifically designed to target privately owned vehicle accidents. The focus of the ADIP is the enlisted soldier (E-1 through E-5) between the ages of 18-26.

b. Show modules 1 through 3 during initial entry training (IET). Installation commanders will determine procedures for utilization of remaining modules.

c. The ADIP does not require a trained instructor. The appointed facilitator can accomplish a successful presentation with minimum preparation.

8-4. Driver education.

a. All Army personnel (Active Army, U.S. Army Reserve, Army National Guard) and civilian employees required to drive AMVs will be given at least 4 hours of classroom instruction in accident avoidance such as National Safety Council, Defensive Driver Course (DDC) 4. The installation may use any recognized national/state program or self-developed course to meet

this requirement.

b. Every 4 years thereafter, as part of the license renewal process, provide a 4-hour refresher course to meet the requirement of AR 385-55, paragraph B-4. This may be a self-developed course provided to units for presentation.

c. Due to lack of standardization of accident avoidance training, attendance at the entire ADIP authorizes Reserve Component personnel to operate AMVs on TRADOC installations.

8-5. Motorcycle safety. All personnel, while operating or riding on a motorcycle, moped, or three- or four-wheeled all-terrain vehicle (ATV) will wear personal protective equipment IAW AR 385-55, paragraph B-3(e).

8-6. Troop safety.

a. The speed limit on all TRADOC installations when approaching or passing a troop formation from either the front or rear is 10 miles per hour (MPH). Display adequate regulatory signage at all vehicle entrances to post, in concentrated troop areas (e.g., company areas, billeting areas), and along all routes of troop march.

b. Motorists will not jeopardize the safety of troop formations. If the potential exists where a vehicle operator is in doubt of safely passing a formation, the vehicle operator will stop and await directions from the person in charge of the formation.

8-7. Control of stragglers.

a. Personnel unable to remain with the formation (i.e., stragglers) will immediately go to the extreme right side/shoulder of the road and, if possible, continue in the direction of the formation.

b. Safeguard stragglers by one or both of the following methods:

(1) Use cadre, with appropriate safety equipment (e.g., reflective vests) to follow stragglers.

(2) Use a trail vehicle with flashing lights to pick up/follow stragglers.

c. Stragglers will not remain in the roadway, thereby placing themselves in danger of being struck by vehicles.

8-8. Traffic safety clothing. Use traffic safety clothing identified in table 8-1 or equivalent alternatives.

a. Position diagram for distinctive marking of marching troops is at figure 8-1. As a minimum, traffic and column guards will wear reflective vests (marked with an asterisk (*)) during all road marches. commanders will determine if additional traffic safety clothing is required. Equip marching troops (marked by a plus (+) sign) with reflective clothing for movement on high speed roads. During darkness or inclement weather, front and rear guards will march 30 meters in front (flashlight beam directed forward) and to the rear (flashlight beam directed rearward) of each formation.

b. Military police personnel will wear the safety vest and sleevelet.

8-9. Privately Owned Vehicle (POV) Task Force.

a. A POV Task Force will be convened at HQ, TRADOC (ATOS) and all TRADOC installations at least semiannually to analyze POV accident trends, identify and review local facility traffic problems, and/or establish special safety campaigns for specific high POV accident periods.

b. Members of the POV Task Force/Traffic Review Board will consist of, but be not limited to, the following:

(1) Traffic engineer (DIS).

(2) Provost marshal.

(3) Safety director/manager (chairperson).

(4) Public affairs officer.

(5) Staff judge advocate.

c. Invite local law enforcement agencies to attend and participate.

d. Forward POV task force recommendations to installation commanders for review and possible adoption.

Chapter 9

Hazard Communication Program, Hazardous Waste Operations, Installation Spill Contingency Plan, and Installation Response Team

9-1. General. This chapter specifies minimum safety criteria for safe handling, controlling, storing, transporting, and disposing hazardous chemicals/materials and waste. The Commander, TRADOC requires the use of means, methods, procedures, and equipment which will accomplish the mission in a safe manner and protect personnel, the general public, and the environment from the harmful effects of hazardous chemicals/materials and hazardous waste (HW).

9-2. Responsibilities.

a. Commanders, TRADOC installations will-

(1) Implement the safety requirements of 29 CFR 1910.120, 29 CFR 1910.1200, 29 CFR 1910.1450, 29 CFR 1926.59, DOD 6050.5, AR 200-1, and other applicable directives.

(2) Provide adequate resources to implement all of the requirements of the Hazard Communication

Program.

(3) Determine organizations/personnel responsible for respirator training, fit testing, recordkeeping, respirator cleaning, repairs, and control of repair parts.

b. IBSMs will-

(1) Develop a chemical hygiene plan for each laboratory that uses hazardous chemicals IAW 29 CFR 1910.1500.

(2) Ensure hazard communication program elements are required by the director of contracting in contract specifications IAW 29 CFR 1910.1200 and 29 CFR 1926.59.

(3) Develop and publish a hazard communication (HAZCOM) program to implement the requirements of 29 CFR 1910.1200 and DOD 6050.5 and identify responsibilities for subordinate organizations/activities and tenants that store, handle, transport, or dispose of hazardous chemicals/materials.

(4) Support safety requirements outlined in ARs 420-47 and 700-141.

(5) Provide documentation of HAZCOM training to the organizations responsible for maintaining the employees' and soldiers' personnel files.

(6) Review job hazard analysis, risk assessments, and SOPs which involve operations.

(7) Advise commander on occupational safety and health issues regarding hazardous material, hazardous waste management, the installation spill contingency plan, and the installation response plan.

(8) Prepare and maintain an installation respiratory protection program directive IAW 29 CFR 1910.134 and AR 11-34.

(9) Provide assistance in integrating HAZCOM training and provide training for school personnel responsible for integrating HAZCOM training.

(10) Review and approve site safety and health plans IAW 29 CFR 1910.120.

Chapter 10

Water Safety

10-1. Responsibilities.

a. Director, CSO will evaluate the TRADOC water safety program.

b. Commanders, TRADOC installations will-

(1) Implement policies and procedures contained in AR 385-15.

(2) Identify military nonswimmers and provide swimming/water survival training.

(3) Establish directives for safety procedures for tactical water operations (see app D).

(4) Establish directives for safety procedures for recreational water activities (see app E).

c. IBSMs will-

(1) Provide staff oversight of the installation water safety program.

(2) Monitor appropriate cadre/staff instruction to ensure all instructors receive training in water operations and hazards before teaching students.

(3) Review and comment on new and revised installation water safety directives.

(4) Monitor water operations and water safety

training developed and conducted on the installation and unit training conducted off the installation.

10-2. Accident reporting. Report accidents involving water operations that indicate inadequacy of the provisions of this regulation or AR 385-15 to Commander, TRADOC, ATTN: ATOS, Fort Monroe, VA 23651-5000 IAW paragraphs 2-5d and e, above.

Chapter 11

Ionizing and Nonionizing Radiation Protection Program

11-1. General. The Commander, TRADOC requires the use of means, methods, procedures, and equipment which will accomplish the mission in a safe manner and provide personnel, the general public, and the environment, protection from radiation hazards as low as reasonably achievable (ALARA) and at least equal to that required by 10 CFR, 29 CFR 1910, and DA nonionizing radiation protection standards.

11-2. Responsibilities.

a. Director, CSO will review applications for Nuclear Regulatory Commission (NRC) licenses/license renewals, Department of the Army authorizations (DARA), and Department of the Army radiation permits.

b. Commanders, TRADOC installations will-

(1) Establish a formal ionizing/nonionizing Radiation Protection Program consistent with the requirements of this regulation, AR 385-9, AR 385-11, AR 40-5, AR 40-14, AR 40-46, AR 700-64, and other applicable directives.

(2) Develop and publish a written ionizing/nonionizing Radiation Protection Program directive to implement radiation protection standards and to identify responsibilities of subordinate organizations/activities and tenants that store, handle, transport, or

dispose of radioactive material or items capable of producing radiation.

(3) Provide training, equipment, and resources for the radiation protection officer (RPO) IAW ARs 40-5 and 385-11.

c. IBSMs will-

(1) Provide staff oversight of the Radiation Protection Program.

(2) Review applications for NRC licenses, DARAs, and DA radiation permits for accuracy and completeness. Forward applications through commander, TRADOC, ATTN: ATOS, Fort Monroe, VA 23651-5000 (RCS exempt: AR 335-15, para 5-2i) to Commander, U.S. Army Materiel Command (AMC), ATTN: AMCSF, Alexandria, VA 22333-0001.

d. Installation RPOs will-

(1) Perform the responsibilities specified in ARs 40-5, 385-11, and other applicable directives.

(2) Train and qualify local radiation protection officers (LRPO) and radiation workers to safely perform assigned duties, commensurate with AR 385-11 and applicable NRC licenses, DARAs, and technical manuals, including use of wipe test kits. Copy furnish wipe test results to Commander, TRADOC, ATTN: ATOS, Fort Monroe, VA 23651-5000 (RCS exempt: AR 335-15, para 5-2i).

(3) License all radiation producing material and equipment on the installation as specified in AR 385-11. Post documents IAW license requirements. Maintain forms, technical manuals, and technical bulletins as required by the licenses of AMC and other license holders authorized by the Army.

11-3. Destructive testing. Destructive testing of radioactive material or equipment containing

radioactive material is prohibited, however, exception to policy may be granted on a case-by-case basis. Submit requests for exception to policy through the installation Safety Office through Commander, TRADOC, ATTN: ATOS, Fort Monroe VA, 23651-5000 (RCS exempt: AR 335-15, para 5-2i) to Commander, AMC, ATTN: AMCSF, Alexandria, VA 22333-0001 for DA approval.

11-4. Radioactive material licensing. The acceptance, storage, or use of radioactive material, or equipment/items containing radioactive material, not licensed by the NRC, and/or as otherwise specified in AR 385-11 is prohibited. Unauthorized radioactive materials, equipment, or items containing radioactive material discovered on the installation will be reported by memorandum through the Commander, TRADOC, ATTN: ATOS, Fort Monroe, VA 23651-5000 (RCS exempt: AR 335-15, para 5-2b(6)) to Commander, AMC, ATTN: AMCSF, Alexandria, VA 22333-0001. Secure radioactive material or equipment until instructions regarding corrective action is received.

11-5. Telephonic report. Immediately report, by telephone, any occurring events/incidents involving NRC licensed material to the TRADOC Radioactive Material Control Point (RMCP), DSN 680-3930. Follow the telephonic report by a memorandum within 10 working days sent through Commander, TRADOC, ATTN: ATOS, Fort Monroe, VA 23651-5000 (RCS exempt: AR 335-15, para 5-2b(6)), to the licensee as stated in paragraph 11-4, above.

Chapter 12

Tactical Safety

12-1 General. Accidents and injuries increase during maneuver and field training exercises (FTX). Lack of safety planning and failure to adequately prepare all soldiers and equipment contribute to unsafe acts and conditions--the two primary causes of most accidents and injuries.

12.2. Responsibilities.

a. Commanders, TRADOC installations will-

(1) Review safety requirements contained in this regulation during the planning and execution phases of FTXs.

(2) Implement required safety precautions during all phases of the FTX.

(3) Provide operation plans for major exercises to the designated safety officer for review during planning stages prior to deployment.

(4) Evaluate risks in all planned training exercises involving TRADOC units and exercises on TRADOC installations (including those by non-TRADOC units) and avoid unnecessary risk. Develop training risk assessments IAW paragraph 4-2e(4)(a). Commanders will address the worst case credible hazards to personnel, facilities, and unrelated operations, and any residual hazards (e.g., dud munitions) both inside and outside the designated training area. Make risk decisions IAW paragraph 4-3a, above.

(5) Include in training plans from non-TRADOC units training on TRADOC installations, a risk assessment following the above guidance.

b. IBSMs will review plans and risk assessments for major exercises (separate brigade or higher) and provide appropriate recommendations and support (subject to availability of personnel resources) during the execution of the exercise and make recommendations for responsibilities of additional duty safety officers.

c. Suggested practices for tactical safety are at appendix F.

Appendix A

References

Section I
Required Publications

AR 15-6
Procedures for Investigating Officers and Boards of
Officers

AR 25-400-2
The Modern Army Recordkeeping System (MARKS)

AR 40-5
Preventive Medicine

AR 40-14
Control and Recording Procedures for Exposure to
Ionizing Radiation and Radioactive Materials

AR 40-46
Control of Health Hazards from Lasers and Other High
Intensity Optical Sources

AR 75-1
Malfunctions Involving Ammunition and Explosives

AR 95-1
Army Aviation: Flight Regulations

AR 95-3
Aviation: General Provisions, Training,
Standardization, and Resource Management

AR 19040
Serious Incident Report

AR 200-1
Environmental Protection and Enhancement

AR 210-21
Ranges and Training Areas

AR 215-1
Administration of Army Morale, Welfare, and

Recreation Activities and Nonappropriated Fund
Instrumentalities

AR 385-9
Safety Requirements for Military Lasers

AR 385-10
The Army Safety Program

AR 385-11
Ionizing Radiation Protection (Licensing, Control,
Transportation Disposal, and Radiation Safety)

AR 385-15 with TRADOC Suppl 1
Water Safety

AR 385-16
System Safety Engineering and Management

AR 385-26
Use of Explosives and Pyrotechnics in Public
Demonstrations, Exhibitions, and Celebrations

AR 385-40
Accident Reporting and Records

AR 385-55
Prevention of Motor Vehicle Accidents

AR 385-60
Coordination with the Department of Defense
Explosives Safety Board

AR 385-62
Regulations for Firing Guided Missiles and Heavy
Rockets for Training, Target Practice and Combat

AR 385-63
Policies and Procedures for Firing Ammunition for
Training, Target Practice and Combat

AR 385-64
Ammunition and Explosives Safety Standards

AR 385-95
Army Aviation Accident Prevention

AR 420-47
Solid and Hazardous Waste Management

AR 672-5-1
Military Awards

AR 672-20
Incentive Awards

AR 672-74
Army Accident Prevention Awards Program

AR 690-950
Career Management

AR 700-64
Radioactive Commodities in the DoD Supply Systems

AR 700-141
Hazardous Materials Information System (HMIS)

DA Pam 385-95
Aircraft Accident Investigation and Reporting

DOD 6050.5
Hazardous Communication Program

DOD 6050.5H
Hazardous Communication Handbook

FM 20-22
Vehicle Recovery Operations

FM 10-69
Petroleum Supply Point Equipment and Operations

FM 21-305
Manual for the Wheeled Vehicle Driver

FM 21-306
Manual for the Track Combat Vehicle Driver

FM 100-5
Operations

TB MED 575
Swimming Pools and Bathing Facilities

TC 5-210
Military Float Bridging Equipment

TM 5-662
Swimming Pool Operations and Maintenance

TM 5-811-1
Electric Power Supply and Distribution

TRADOC Reg 700-2
Ammunition

10 CFR 19
Notices, Instructions, and Report to Workers: Inspection
and Investigation

10 CFR 20
Standards for Protection Against Radiation

29 CFR 1910
Occupational Safety and Health Standards

29 CFR 1926.59
Hazard Communication

33 CFR 183
Boats and Associated Equipment

Section II
Prescribed Forms

TRADOC Form 385-2-1-R-E
Accident Exposure Report (RCS ATOS-1)

TRADOC Form 385-2-2-1-R
Technical Report of TRADOC Ground Accident, Index A

TRADOC Form 385-2-2-2-R
Technical Report of TRADOC Ground Accident, Index B

TRADOC Form 385-2-3-R-E
TRADOC Serious Accident Report (RCS ATOS-2)

Section III Referenced Forms

DA Form 285
U.S. Army Accident Report

DA Form 348
Equipment Operator's Qualification Record

DA Form 2397-R
Technical Report of U.S. Army Aircraft Accident

OF 346
U.S. Government Motor Vehicle Operator's
Identification Card

SF 91
Operator Report on Motor Vehicle Accidents

Appendix B

Evaluation Procedures for Use of
Explosives and Pyrotechnics in
Public Demonstrations, Exhibitions, and
Celebrations

B-1. Procedures. Installation commanders will ensure the requirements listed below are met prior to granting approval to use explosives and pyrotechnics in public demonstrations, exhibitions, or celebrations.

B-2. Approval. Functions conducted by military or DA civilian personnel, whether on or off post, require HQ, TRADOC (ATOS) approval. Installations will request

approval through command channels to Commander, TRADOC, ATTN: ATOS, Fort Monroe, VA 23651-5000 NLT 45 days prior to the event (RCS exempt: AR 335-15, para 5-2i). Request will include review by IBSM and will comply with the following restrictions and constraints:

- a. Prepare written documents, to include risk assessment, specifying the responsibilities and procedures to be followed.
- b. Limit delivery of explosives or pyrotechnics to the morning of the demonstration. Do not store nonmilitary explosives and/or pyrotechnics on the installation.
- c. Establish stringent guard and security controls for the material until it is expended or returned to home station.
- d. Establish controls to prevent spectators and other nonparticipant from entering the storage or demonstration area.
- e. Aim all directional fire away from personnel and structures. Static firing will be at a safe distance from personnel and structures. Attach a scaled diagram showing distances of personnel and structures from static firings.
- f. Adequate emergency medical evacuation and fire fighting personnel and equipment will be available in the immediate vicinity of the demonstration area during the period of the demonstration.
- g. Ensure the demonstration area is free of duds and hazardous residual material.

B-3. Contractor demonstrations. Functions conducted by civilian contractors will meet the following additional requirements:

- a. A properly executed contract will specify the type and quantity of explosives and pyrotechnics to be used

in the demonstration.

b. Risk assessment identifying hazards and risks to be eliminated, reduced, or accepted is reviewed by IBSM and approved by installation commander.

c. Liability insurance coverage, both bodily injury and property damage, will be required by the contractor.

d. The handling and detonating of explosives or pyrotechnics will be accomplished by the contractor or his or her employees.

e. No Department of the Army personnel will be permitted to handle or activate any of the items used in the demonstration.

Appendix C

Preparation of Waiver/Exemption Requests

C-1. Waivers. Waivers are granted for specific situations and are applicable only to the hazards and exposures specified in the request and related correspondence. Waivers will not be interpreted to apply to other operations, locations, or conditions not specifically mentioned in the basic request, enclosures, and endorsements. Base waiver requests on a thorough study, hazard analysis, and an assessment of the resulting risk. Waiver must present adequate information to allow HQ, TRADOC (ATOS) to determine the extent of the noncompliance. Granting of waivers is based on the premise that special precautionary safety measures will be taken to reduce the hazards inherent to noncompliance.

C-2. Preparation of waiver requests. When the commander determines a waiver is necessary, prepare a request containing the following information:

a. Description of the condition. Prepare a general map of the area, including the entire danger area around the

facility. This map must be scaled to 1 inch equals 400 feet (1:4800) and oriented accurately. It must show location and identification of public and installation facilities and airfields exposed to the explosives hazard. Note topographic features bearing on the safety evaluation. Identify forest areas that may screen against blast or become a fire hazard. The general area map will include an area around the explosive hazard equal in radius to the appropriate distance required by Q-D tables, plus 25%. Prepare a detailed map of the explosives storage and operating area. This map will show, with suitable symbols, the location and use of the various types of buildings, as appropriate. For example, reinforced concrete bunkers, igloo magazines, above ground huts, "A" frames, renovated buildings, shipping facilities, administrative and service buildings, missile storage buildings, launcher racks, missile component storage facilities, missile assembly buildings, and fueling areas. This scaled map will delineate, by circles and arcs, the actual and required distances between the various facilities. When appropriate, show inhabited buildings and interline and intermagazine distances. Note barricades or topographic features with a significant shielding effect. Indicate location and type of fencing, points of entry into the area, and internal road grid. These distances will not be arbitrarily measured from maps, but rather confirmed by actual measurement.

b. Buildings and line layouts. Prepare a drawing showing the structural protective features, including structural materials used, fire protection systems, exits, deluge systems, barricades, operational shields, and reinforced concrete walls. Drawings of existing facilities must be as built, showing existing conditions and indicate:

- (1) Explosive material used.
- (2) Material flow.
- (3) Storage areas.

(4) Work stations.

(5) Number of personnel (working or transient) at each work station.

(6) Maximum quantity of explosives permitted at each work station or storage site.

(7) Installed reproduction equipment.

(8) Material handling methods (including conveyer belt speeds).

(9) Spacing of items, inapplicable.

(10) Sources and disposition of all material entering or leaving the line.

c. Missile sites. Prepare detailed area maps for missile storage and launching sites IAW paragraph C-1b(1), above and include additional information as required for careful evaluation of the hazards involved.

d. Narrative description. Prepare a hazard analysis and risk assessment of the conditions. Include relevant data, not shown on maps or drawings, that is required for accurate evaluation of the condition and the effect disapproval may have on military operations.

e. Violated safety regulations. Reference specific safety standards, requirements, and conditions, cited by paragraph, that will not be complied with. General statements are not acceptable.

f. Justification. State that compliance with mandatory safety requirements cannot be accomplished locally and the reason(s) why. Justification must prove that every reasonable and prudent alternative to comply with requirements has been explored and found impossible or impractical.

g. Precautionary actions. Describe precautionary measures taken to achieve safety in operations during

the period of the waiver. Specify where equivalency to regulatory standards or requirements is achieved.

CAUTION: For certain weapons systems, the development of new tools or work methods by user units is specifically prohibited unless approved by proper authority.

h. Corrective action. Include a plan of action to eliminate the conditions covered in the request and actions that are being taken or will be taken and a schedule for accomplishing these actions.

C-3. Exemptions. Information required is identical to that for waiver requests, except statement of why immediate corrective measures are impractical and would impair overall defense posture is required.

Appendix D

Safety Procedures for Tactical Water Operations

D-1. Amphibious crossings. For tracked vehicles in amphibious crossings of large bodies of water (e.g., lakes or wide rivers), use a rescue boat with two qualified lifeguards (American Red Cross Senior Certificate or equivalent). When swimming in bodies of water that are muddy or when the depth of water is such that the bottom cannot be seen, specify in the unit SOP that no less than one certified diver be provided instead of two lifeguards. Equip rescue boats with life-ring, rope (3/8" or 1/2" thick), and boat hook and position downstream from the crossing site at the appropriate distance according to the velocity of the current.

D-2. Reconnaissance. Make an on-site physical reconnaissance before amphibious operations to determine suitable entrances and exits, maximum allowable water current velocity, stream bed conditions, and depths for vehicle swimming/fording procedures. Complete a risk assessment based on vehicle characteristics, limitations for entering and leaving the water, degree of embankment slope, and speed of

vehicle for safety considerations. Additional procedures relating to amphibious operations are as follows:

- a. Properly mark entrance and exit lanes with flags, engineer tape, poles, or luminous markers. Use easily identifiable floating objects to mark crossing lanes.
- b. Setup stringent controls for crossings during periods of reduced visibility, including blackout conditions, to prevent over concentration of vehicles at entrances and exits. Supply directional lights on the shore to prevent driver disorientation. Have emergency lighting such as a tank spotlight or position enough vehicles with headlights beamed on the water surface for contingencies.
- c. Select an assembly area and conduct precrossing checks of all vehicles and equipment before they enter the water.
- d. Designate a qualified crossing control officer to aid the commander in the orderly movement of vehicles. Each crossing unit will maintain contact with the control officer.
- e. Brief all personnel on emergency evacuation procedures and proper weight distribution. Rehearse these procedures before entry into the water until all individuals are thoroughly skilled. All vehicle crews will conduct two exit drills on dry land.
- f. Supply all personnel with personal floatation devices (PFDs) prechecked for serviceability by vehicle commanders before the operation. Driver and vehicle crew members will wear Type V PFDs during vehicle swim operations in calm water. Personnel will wear PFDs at all times while the vehicle is underway in the water. DO not inflate PFDs while personnel are inside the vehicle.
- g. Ensure that personnel do not wear load bearing equipment (LBE) or overshoes while the vehicle is in the water.

h. Attach a tow cable to the top of each vehicle. Attach a suitable lightweight floating device (capable of raising the rope to the water surface) to the free end of the cable to serve as a buoy marker for a sunken vehicle.

i. Position qualified personnel and adequate equipment near the crossing site to assist in recovering stalled or sunken vehicles.

j. If a vehicle is completely immobilized but not sinking, the driver will place the controls in neutral. The driver and crew will climb out of the vehicle, stay on top with PFDs inflated, and await rescue. The crew should immediately evacuate a sinking vehicle.

k. If a vehicle is to swim a body of water during an exercise, "predip" it not more than 24 hours before the exercise. If any vehicle maintenance/repair procedure is performed which provides floatation/water tight integrity, repeat the "predip."

D-3. Stream crossing procedures. The following apply to personnel crossing streams where the current or depth of stream presents a possible drowning hazard:

a. Identify the weak and nonswimmers before the training. Place weak and nonswimmers between strong swimmers for the water crossing.

b. Select a strong swimmer as the lead person to cross the body of water.

c. Place a moss stream safety line of buoyant material (3/8" or 1/2" thick) downstream and anchor if necessary due to width or current of stream.

d. Position a rescue boat equipped with life ring, safety line, and boat hook manned by two qualified lifeguards or strong swimmers (capable of saving possible drowning victims) downstream from the crossing site.

e. Limit nonbuoyant loads to be carried on the person during crossing to 25 pounds and sling over one shoulder only during the actual crossing. Push or pull heavier loads across on lines and buoyant material.

f. Use type I PFDs whenever fast or rough water conditions exist. Use type V PFDs in calm or slow water.

D-4. Rafting and bridging procedures. The following apply to rafting and bridging operations:

a. All personnel involved in rafting or bridging operations will wear Type I or V PFDs. This includes safety personnel, erection crews, boat operators, and crews crossing on rafts. Dismount crews of vehicles crossing on rafts, issue them PFDs, and walk them onto the raft. Vehicle operators will be issued PFDs, but will remain with their vehicles. All personnel except the driver will dismount when crossing completed bridging. Personnel crossing completed bridging do not require PFDs.

b. At least one rescue boat will be on site at all times.

c. Do not operate a raft or boat immediately upstream of a floating bridge, anchor cable, pier, or other obstacle.

d. Do not load river crossing equipment in excess of the capabilities published in appropriate field and technical manuals.

e. Ensure that power boat lines, anchor lines, and shore lines are in good condition and are a minimum of 3/4 of an inch in diameter.

f. Do not allow loose lines to trail in the water from the bridge, raft sections, or boats.

g. Keep all lines neatly coiled and stowed when not in use.

h. Rafts will not be cast off until boat motors are running.

i. Wheeled vehicles will have windows on both sides down while moving onto or off of rafts. Track vehicles will have hatches open.

j. Track commanders/squad leaders will take a head count of personnel upon boarding and exiting the raft.

k. Personnel will not wear mission-oriented protection posture (MOPP) gear during rafting operations.

l. Medics with an ambulance and resuscitation equipment will be on site at all times.

m. Debris. Rafting on debris-laden streams is extremely dangerous because floating logs, trees, brush, and ice may puncture and sink pontoons and foul propellers. If possible, steer the raft to avoid debris. Station additional personnel equipped with boat hooks or axes on all rafts in debris-laden streams to push or cut debris from the raft. Prepare outboard motor operators to stop motors and change shear pins in the event propellers become fouled. Personnel will remain ready to cast anchors in case of motor failure.

n. When loading vehicles, place them as far downstream on the deck as possible; this gives maximum freedom at the bow. After the completion of loading, the shore lines may be cast loose.

o. Driver responsibilities. Drivers will-

(1) Use vehicles in low gear. Four wheel drive vehicles will have all wheels engaged while crossing bridges and rolling on/off rafts.

(2) Drive vehicles on the raft slowly and steadily.

(3) Follow directions given by the officer in charge (OIC) or the noncommissioned officer in charge (NCOIC) of the raft.

(4) Apply brakes and leave motor running at all

times. Stay in the driver's seat.

(5) Start forward gently upon signal from OIC or NCOIC at raft unloading point. Completely exit the area to allow all vehicles to clear rapidly.

(6) Use signals authorized by TC 5-210 in all Operations. Post signals at the operator's position, signal control points, and other points necessary to properly inform those concerned. Where manual (hand) signals are used, designate only one person to give the signals to the operator. The signalperson must be clearly visible to the operator at all times. Use only fully qualified signalpersons. Provide a signalperson whenever the point of operation is not in full and direct view of the machine or equipment operator.

(7) Have heavy recovery capability on site during unit crossing. The recovery vehicle will be one of the first vehicles to cross.

p. Night operations. Use illumination equipment for night operations. Require flood lights and flares on safety boats and vehicle lights on banks as a minimum. Additionally, attach chemical illumination lights to all PFDs.

q. Rough water reduces load capacity of rafts and complicates handling. Operation of rafts in rough water requires the following additional precautions:

(1) Never permit the initial load to be a capacity load. First cross a test load of half capacity to ensure that the equipment is operating properly. Repair any faulty equipment before continuing crossing operations.

(2) When using bridge erection boats, pull all lines taut with block and tackle or other mechanical means.

(3) Make allowances for reduced freeboard due to wave action.

(4) Wear Type I or V PFDs.

r. Actions to be taken following a sinking.
Commanders, TRADOC installations will-

- (1) Effect immediate rescue of personnel.
- (2) Recover the vehicle.
- (3) Impound the vehicle and place under guard.
- (4) Not change any control setting or otherwise alter the condition of the vehicle.
- (5) Complete a technical inspection in addition to other required investigations. Report equipment malfunctions.
- (6) Evacuate the vehicle to the appropriate facility at the completion of all investigations.
- (7) Have the maintenance unit refloat the vehicle using appropriate procedures and TMs before releasing the vehicle to the using unit.
- (8) Complete accident reports IAW applicable directives.

Appendix E

Safety Procedures for Recreational Water Activities

E-1. Swimming pools.

a. Annually, or before opening any swimming pool facility, inspect the facility for sanitary conditions, maintenance and serviceability (see TM 5-662), illumination criteria (see TM 5-811-1), and safety and health to meet statutory and regulatory requirements for life saving equipment and provisions for lifeguards.

b. Follow ground-fault circuit interrupter and other electric wiring and equipment requirements in the National Electric Code, article 680.

c. Close pools if the required black 6" diameter disc painted at the deepest part of the pool is not clearly visible from the pool sides at a distance up to 10 yards.

d. Post rules for safe operation of pools to be readily seen by all pool users. Develop rules from information in TB MED 575 and from safe operating suggestions, dangerous practices, and dangerous conditions in TM 5-662, section H.

e. All swimming pools, when in use, require a minimum of two fully qualified lifeguards on duty. When the total number of persons in the swimming pool and the controlled area surrounding the pool exceed 150, provide additional lifeguards on the basis of one lifeguard per 75 persons. Lifeguards will be at least 18 years old and certified in cardiopulmonary resuscitation (CPR).

f. Ensure an emergency telephone is immediately available.

g. Ensure that pool equipment is safe to prevent injury from cutting, pinching, puncturing, abrading, slipping, or falling.

h. Secure pool areas when lifeguards are not present for duty or when thunderstorms are imminent. Protect outside pools from unauthorized use by enclosing entire pool with at least a 6' link fence. Channel all patrons into the bathhouse through a single controlled entrance way.

i. Equip pools with life saving equipment recommended in TB MED 575, paragraph 8.

E-2. Natural beaches.

a. Make annual or preopening inspection of each swimming area to meet safety and health requirements.

b. All natural beaches designated as swimming areas

will have at least two lifeguard towers, four lifeguards, and one boat for each 1000 feet of beach or two lifeguards for 500 feet of beach or less. Use a rescue board instead of a rescue boat in areas where the IBSM determines a board is more effective.

c. Place marking signs and buoys to define the swimming areas.

d. Ensure an emergency telephone is immediately available.

e. Life preservers, ring buoys, and other PFDs must meet U.S. Coast Guard requirements.

f. Post rules for safe use of the beach usually on but at least near the lifeguard tower.

E-3. Recreational boating.

a. Before being granted permission to operate any Army-owned power boat or sailboat, the operator will demonstrate a working knowledge of safe boat handling to the boat dispatcher.

b. Post SOPs for all boats, to include rowboats, by the dock area where boats are dispatched.

c. Do not permit use of Army-owned boats without U.S. Coast Guard required and approved boating equipment aboard. Boats will be properly registered with a hull identification number prescribed by the U.S. Coast Guard and the state. At least one U.S. Coast Guard approved life saving device will be on board for each person aboard the boat. Nonswimmers and children will wear a life saving device at all times in boats under Army control.

d. Safe loading of boats and maximum weight and person capacity will comply with 33 CFR 183.

e. Installations are encouraged to contact the Coast Guard Auxiliary to arrange for courtesy marine

examinations (CME) of all Army recreation boats. All owners of private boats stored on post should take advantage of these examinations as well.

E-4. Water skiing.

- a. Army-owned power boats towing water skiers will have at least two people aboard, one to operate the boat and one to maintain visual contact with the skier.

- b. Water skiers must prove swimming ability before water skis are issued or used.

- c. All skiers will wear U.S. Coast Guard approved life jackets.

Appendix F

Suggested Practices for Tactical Safety

F-1. Army motor vehicle operation.

- a. Prohibit movement of military vehicles under blackout conditions on roads open to the public unless prior arrangements have been made to close the roads to public traffic.

- b. License drivers in the vehicle they are operating.

- c. Caution drivers of military vehicles with tactical radios on the hazards of operating in close proximity to power lines. Include in briefings the requirement to tie down antennas to ensure that tip caps are firmly in place.

- d. When crossing hazardous terrain or obstacles where danger of overturning is possible, wheeled vehicle passengers will dismount.

- e. During daytime operations, maintain a minimum interval of 50 meters between vehicles in convoy. Night convoy operations requiring blackout marker lights will maintain vehicle intervals as outlined in FM 21-305 or FM 21-306.

f. Vehicle drivers will maintain a minimum interval of 6 meters between vehicles at the halt. For administrative parking (e.g., in a holding area), vehicles will park side by side or in a herringbone or staggered formation; not bumper to bumper.

g. Use two ground guides per vehicle in bivouac areas. Ground guides will position themselves so that the vehicle operator will be able to observe them at all times.

h. Prior to operation, properly dispatch vehicles and require preventive maintenance checks and services (PMCS).

i. Don't overload vehicles, particularly when transporting personnel.

j. Convoy commander will brief drivers on actions they will take in the event of breakdown, loss of contact with convoy, and hazards associated with their mission.

k. Supervisors will brief passengers on hazards such as standing up, horseplay, riding on loads, wearing rings, etc.

l. Accomplish vehicle towing IAW TM and FM 20-22.

m. Don't transport personnel other than the driver and vehicle commander in the last vehicle of a convoy. Whenever possible, the largest non-passenger vehicle will be the last vehicle in a convoy.

n. Personnel will not sleep in vehicles with engines running.

o. Stencil the maximum number of passengers authorized, load capacity, and the maximum speed limit on the dashboard of all tactical vehicles.

p. Vehicles traveling in convoy should have, as a minimum, a senior occupant in the rank of staff

sergeant or above in the lead and rear vehicles.

F-2. Refueling procedures.

- a. Turn off engine before fuel transfer operations.
- b. Prohibit smoking, open flames, or vehicle operation within 16 meters when refueling or draining fuel tanks.
- c. Refuel/defuel outdoors only.
- d. Ground vehicles IAW FM 10-69 prior to fuel transfer operations. When fueling a vehicle from a fuel tanker, be sure bonding cable between the two vehicles is in place.
- e. Do not allow personnel inside the vehicle during refueling and defueling operations.

F-3. Rail loading.

- a. Ensure communications with medical support personnel during rail loading and unloading operations.
- b. Personnel will be clear of rail cars and trains moving on nearby tracks.
- c. Vehicle operators will remove whip antennas from vehicles before entering the rail loading site. Do not remount antennas until vehicles are in the staging area away from electrocution hazards.
- d. Clear rail cars of built-up ice, snow, or excess dunnage before the start of loading/unloading operations.
- e. Use two ground guides when moving vehicle in the staging areas. Use hand and arm signals. During hours of darkness, ground guides will use flash lights and chemical lights to signal vehicle operators. Do not authorize personnel, other than ground guides, near vehicles being loaded or unloaded.

f. All personnel involved in loading/unloading operations will wear protective head gear and eye armor.

g. Brief all personnel on hazards and safety requirements associated with rail loading and unloading operations.

F-4. Bivouac area.

a. Personnel will not erect tents or sleep in the open, near roads, trails, or other areas where vehicles might travel. Choose sleeping spots near a large tree or boulder if possible. Personnel will not sleep under vehicles or trailers. Post guards to protect sleeping areas as necessary.

b. Store fuel for tent heaters outside of tents. Fire extinguishers will be readily available for use in tents with heaters. Bury fuel lines to heaters when inside tents and when run across other walkways. Do not mix fuels (e.g., diesel with MOGAS). Where rubber matting or wooden floors are used inside a tent, place a sandbox under the stove. Extend the stove pipe above the highest portion of the tent and secure the flaps around the pipe to prevent a fire.

c. Establish a bivouac area fire watch to ensure that all necessary precautions are taken to prevent accidental fire or explosion.

d. Commo wire will not be strung over power lines.

e. Restrict operation of kitchen equipment, immersion heaters, generator equipment, and related equipment to licensed personnel. Fire extinguishers will be available. Conduct all refueling operations at least 50 feet from buildings or potential ignition sources.

f. Strictly control weapons, ammunition, pyrotechnic simulators, and explosives. Caution soldiers to never disassemble or ignite photo flash powder contained in simulators.

g. Locate vertical antennas to ensure a distance at least twice the antenna height is maintained between power lines and antenna to preclude contact during assembly and disassembly. All personnel erecting an antenna mast must wear safety goggles, a helmet, and gloves. Ensure tip caps are on all antenna elements.

h. Use tire cages and a 10-foot air hose extension, with clip-on chuck, when inflating tires with split rims. Thoroughly train all personnel performing such function.

Appendix G

Format for Submitting Nominations for TRADOC Commander's Aviation Accident Prevention Award

MEMORANDUM FOR Commander, U.S. Army
Training and Doctrine Command, ATTN: ATOS-A, Fort
Monroe, VA 23651-5000

SUBJECT: Nomination for TRADOC Commander's
Aviation Accident Prevention Award, Fiscal Year.....

1. (Name of installation and unit) is nominated for the
TRADOC Commander's Aviation Accident Prevention
Award, Fiscal Year ---

2. The (current) fiscal year accident experience
computations include all accidents, disabling injuries,
and damages charge- able under AR 385-40.

a. Number of flying hours.

b. Class A, B, and C accidents per 100,000 flying
hours. (Show date, aircraft type, and serial number for
all accidents over \$10,000.)

c. Class D accidents per 100,000 flying hours. (Show
date, aircraft type, and serial number for all accidents
below \$10,000.)

d. Injuries per 100,000 flying hours.

e. Fatalities per 100,000 flying hours.

f. Total accident cost (total Class A, B, C, and D).

g. Accident causes:

(1) Crew error (number).

(2) Maintenance error (number).

(3) Material failure/malfunction (number).

(4) Environmental (as defined in AR 385-40).

3. (Name of installation and unit) has met the criteria as indicated below:

a. A high degree of command and staff emphasis on aviation safety.

b. Documented specific aviation safety program objectives in orders, SOPs, policies, and directives.

c. Establishment of accident prevention functions IAW the provisions of current directives from higher headquarters.

d. An effective accident prevention promotion and education program.

e. Complete and accurate accident reporting, identification of accident causes and corrective measures, or an effective inspection and survey program of prevention.

NOTE: Paragraph 3b, above requires submission of data to support a broad view of the aviation accident prevention program. Submit specific documentary evidence to substantiate statements, if desired.

Appendix H

TRADOC Centralized Accident Investigation, Ground Program

H-1. Objectives. The TRADOC Centralized Accident Investigation, Ground (CAIG) Program establishes procedures for investigating on-duty class A ground accidents as defined in AR 385-40, and other categories of accidents as directed by the CSO.

H-2. Policy. A CAIG board will investigate on-duty class A/B training accidents and selected other categories of accidents. AU CAIG boards will employ general use accident investigation procedures IAW AR 385-40 unless directed to do a limited use accident investigation by CSO.

H-3. Responsibilities.

a. The first commander in the troop chain of command who becomes aware of an on-duty class A accident will-

(1) Care for soldiers and evacuate and treat casualties as needed. This includes moving soldiers and security guards to safe distances from danger or hazards.

(2) Secure the accident site to prevent disturbance of the site or movement of wreckage and equipment until relieved by proper authority.

(3) During duty hours, notify CSO, DSN 680-5919. During non-duty hours, notify the Emergency Operations Center, DSN 680-2256. Use procedures outlined in paragraph H-7.

(4) Report incidents or events IAW AR 385-40, paragraph 3-4.

(5) Report incidents or events listed in AR 190-40 to the nearest MP station as soon as the first commander in the troop chain of command becomes aware of the incident or event.

(6) Coordinate all actions with appropriate authorities for accidents occurring in areas not under Army control.

(7) To minimize environmental damage, accomplish cleanup of oil, fuel, and other hazardous material spills as soon as possible. If a hazard exists, cleanup will take precedence over presentation of accident site.

(8) Restrict access to the accident scene to commanders and other agencies conducting concurrent investigations.

(9) Provide MP or Criminal Investigation Division (CID) personnel access to items of evidence that could be destroyed by time or the elements before the CAIG board arrives at the accident site.

b. Commanders, TRADOC installations are appointing authorities for CAIG boards. This authority will not be delegated further. TRADOC Chief of Staff will appoint CAIG boards for all other TRADOC service schools and activities on non-TRADOC installations. The appointing authority will-

(1) Appoint the president and other members of the CAIG board from organizations other than the activity incurring the accident. Individuals from that activity may be designated as advisers (nonvoting) to enhance the investigation and reporting of the accident.

(2) Give priority to accident investigation and reporting duties to ensure prompt completion of CAIG reports.

(3) Ensure that no member of the CAIG board has a personal interest in the outcome of the accident investigation.

(4) Appoint a member of the servicing safety office to act as safety point of contact (POC) for the CAIG board.

(5) Initiate preliminary actions required by this regulation.

(6) Publish orders for CAIG board.

(7) Administratively support the CAIG board.

(8) Provide logistical support, including equipment to recover wreckage when it is authorized to be moved. Make provisions for a suitable and secure area for storage and technical inspection wreckage.

(9) Establish a POC to process information concerning the accident and progress of the investigation to CSO POC.

(10) Coordinate the activities and reports prepared and submitted by all agencies concerned, and send to CSO POC. NOTE: CSO is responsible for appointing authority actions when the TRADOC Chief of Staff appoints the CAIG board.

H-4. Composition of CAIG board.

a. The appointing authority appoints a military board president, a recorder, and additional technical members as necessary, and provides local augmentation. The board president will, as a minimum, be a field grade officer, preferably branch-qualified in the area being investigated. Appoint local augmenters as members or advisers, as requested by the board president.

b. Personnel appointed as board members are voting participants. Local members normally will consist of a medical officer and technical specialists qualified in the maintenance and operation of the equipment involved in the accident.

c. Personnel appointed as advisers are nonvoting participant. In cases where equipment involved is unique to one organization or activity at a location, technical specialty from organizations other than that incurring the accident may not be available. In such

cases, technical personnel on advisory status from the organization incurring the accident may be used, at the discretion of the board president. Advisers will not be personnel directly involved in the accident or in the chain of command of those directly involved. Refer requests for assistance by other outside agencies to the CSO.

d. Appoint both members and advisers on orders, responsible for following the provisions of this regulation, AR 385-40, and DA Pam 385-95.

H-5. Procedures.

a. Upon arrival at the accident scene, the board president assumes control of the site from the chain of command. He or she will direct the security of site and other tasks and keep the commander informed of the investigation's progress. At this point, responsibility for all matters is transferred from the commander to the board president.

b. When the situation does not permit preservation of the accident scene, MP or CID personnel will remove all items of evidence needed for their investigation. Photograph items before they are collected whenever possible. If the wreckage must be moved, stake and guard all components, wreckage, and debris in a secure area until released by the board president. Personnel involved with the recovery operation and knowledgeable of the resulting damage to the wreckage will be available during the preliminary inspection of the wreckage by the CAIG board. In addition, the appointing authority will ensure that photos (on other than self-developing film) are taken and sketches of the scene are made with sufficient detail and measurements to allow a scale drawing to be made. Identify all wreckage, damage, and ground markings incident to the accident and photograph before measurement and cleanup of the accident scene. Provide sketches and photographs to the board president as soon as possible after his or her arrival.

c. The CAIG board will have access to physical evidence collected by MP or CID personnel. The board president is responsible for ensuring that no one takes any action that would destroy the evidence or compromise the legal chain of custody of those items.

d. Access to and collection of information by the CAIG board. The CAIG board will have access to all evidence (IAW AR 385-40), photographs, and witness statements collected by MP or CID personnel. The board will also have access to all personnel, medical, and financial records on personnel involved in the accident and maintenance records on the equipment involved in the accident. If evidence is forwarded to CID laboratories for analysis, provide the board president a copy of the laboratory report. Whenever possible, CID personnel will advise the board president of the determination made by the laboratory (which may be received from the laboratory telephonically). The board president may determine that additional information is necessary for the investigation. when this occurs, the board president will request additional analysis by the laboratory. The results of the additional testing are considered common source actual data available for use by all investigators.

e. Access to information collected by the CAIG board.

(1) Other investigators will be given access to reports received after submission of equipment to Army depots for teardown analysis, command-directed fitness for duty examinations, official reports on personnel and equipment involved (if not available from other sources), and photographs of the accident scene. Provide a list of witnesses upon request. Other investigators will not be given access to witness statements taken by board members.

(2) Refer requests for information collected by the CAIG board from non-DOD agencies and members of Congress or the general public to the Commander, USASC IAW AR 385-40, paragraph 1-10.

f. Actions when criminal activity is suspected.

(1) If MP or CID investigators discover evidence of criminal activity other than negligence during the investigation, they will advise the board president. The board president, after consultation with the appointing authority, will discontinue the investigation if no further need for the investigation exists. If the investigation continues, it will be subordinated to the MP or CID investigations insofar as access to witness, accident scene, and evidence are concerned.

(2) If, during the conduct of the investigation, the board discovers evidence of criminal activity, the board president will consult with the appointing authority to determine whether the investigation should be terminated. Board president will take action with MP or CID as follows:

(a) If the evidence is physical or is a common source item, MP or CID will be notified, the evidence will be surrendered to MP or CID personnel, and the board members will provide documents necessary to establish chain of custody.

(b) If the evidence is based on a confidential witness statement, the board president will advise MP or CID and the local commander of a change in status of the investigation. Before the board leaves the accident site, the board president will provide a list of personnel interviewed and copies of all common source materials. The board president will not discuss individual statements or specific comments that led to the board's suspicion of criminal activity.

H-6. Review of CAIG reports. Reviewing agencies will process CAIG reports promptly.

(1) Unit review. The initial reviewing official normally will be the commander of the unit involved or the commander of the supervisor directly responsible for the operation, material, or persons involved in the accident. The initial reviewing official will-

(a) Concur or nonconcur in the findings and recommendations of the CAIG report.

(b) Note corrective actions taken or proposed and recommendations for additional actions by higher headquarters or other agencies.

(c) Expeditiously forward the original and all copies of the report through the chain of command to the approving authority.

(d) Circulate factual data of the accident promptly within the unit and implement recommendations that can be put into effect immediately.

(2) Intermediate review and approving authority action. The approving authority will be the appointing authority of the CAIG board or a general officer chosen by the approving authority. The approving authority will-

(a) Approve or disapprove such recommendation made by the CAIG board as written or amended by reviewing officials and make additional comments as required.

(b) State how corrective actions will be accomplished.

(c) Recommend action by higher headquarters or other agencies.

(3) The reviewing and approving authorities will ensure the accident report is complete and take additional actions as required.

H-7. CAIG telephonic notification to HQ, TRADOC (RCS exempt: AR 335-15, para 5-2e(7)). Provide the information in figure H-1 during duty hours to CSO, DSN 680-5919, and to Emergency Operations Center, DSN 680-2256, after duty hours.

H-8. Report distribution Prepare CAIG board reports on TRADOC Forms 385-2-2-1-R and 385-2-2-2-R in four

copies within 60 calendar days after the accident. Assemble report IAW figure H-2. Forward the original and two copies through the chain of command to the approving authority for review. Upon completion of the review, the approving authority will forward the original and one copy to Commander, TRADOC, ATTN: ATOS, Fort Monroe, VA 23651-5000. The remaining copy will be filed at the head-quarters of the approving authority.

a. CSO reserves the right to arrange a CAIG board outbrief with the Commander, TRADOC or headquarters staff for selected accidents.

b. Process other investigative reports listed below through the CAIG appointing authority:

(1) AR 385-40, paragraph 1-7c outlines requirements for collateral investigations. Such investigations are conducted IAW AR 15-6 and DA Pam 385-95 and are used to compile information that can be used for any purpose.

(2) AR 75-1 governs investigations and reporting of malfunctions involving ammunition and explosives.

(3) It is possible that all of these separate activities could be going on as the result of a single accident. The CAIG board president will ensure that a cooperative interchange of information and evidence takes place. Disposition of the reports in paragraph H-3a, above will be IAW the regulation governing that report.

H-9. Local support of CAIG boards (See para H-3b).

a. Preliminary actions:

(1) Secure accident scene.

(2) Obtain copies of personnel, medical, and training records for all personnel directly involved in the accident (SF 46 and DA Form 348, if appropriate).

(3) Identify and notify local board members.

(4) Publish orders appointing CAIG board.

(5) Obtain any special security/access clearances necessary for access to the accident scene by board members.

(6) Arrange for special transportation, if required, to reach the accident scene, e.g., tactical vehicles or aircraft.

b. Obtain the following items of immediate interest to the board:

(1) List of personnel from whom blood and urine samples were taken.

(2) Witness information: name, rank, telephone number, summaries of any statements made.

(3) Serious incident report (SIR), report of serious accident (ROSA), MP, and CID reports, if completed.

(4) Location, date, time, and name of medical officer conducting autopsy.

(5) 1:50,000 scale map which indicates accident site.

(6) Directives that pertain to the operation being conducted which resulted in the accident.

(7) Weather statements (signed by forecaster).

c. Coordinate billeting of board members, if necessary, with local housing office.

H-10. Administrative support (see paragraph H-3b(7)). Provide the board-

a. One typist capable of tape transcription.

b. A work area large enough to conduct witness

interviews and deliberations.

c. A maintenance-type work area for storage/technical inspection of equipment involved.

d. Photo lab support to develop and print color photographs and develop and mount color slides.

Appendix I

Three Tiers of Safety

(Command Level, Leader Level,
Individual Level)

I-1. Specifies force protection responsibilities for the chain of command and every individual.

a. Tier 1-Command Level.

(1) Provide command climate which ties safety into force protection.

(2) Plan/resource for safety.

(3) Establish standard for safety.

(4) Train consistent with abilities.

(5) Make risk acceptance decisions.

b. Tier 2-Leader Level.

(1) Reinforce command climate on safety.

(2) Identify and eliminate/control safety hazards.

(3) Emphasize performance to standards.

(4) Make risk decisions; supervise/follow-up.

(5) Assess risks.

c. Tier 3-Individual Level.

- (1) Take responsibility.
- (2) Do something about unsafe acts.
- (3) Modify your own risk standards.
- (4) Be part of the buddy system.
- (5) Work as a team (crew coordination).

Glossary

Section I

Abbreviations

A&D	admission and disposition
ADIP	Army Driver Improvement Program
ALARA	as low as reasonably achievable
AMC	U.S. Army Materiel Command
AMV	Army motor vehicle
ARMS	Aviation Resource Management Survey
ATV	all-terrain vehicle
ASO	aviation safety officer
ASP	ammunition supply point
BASOP	base operations
CAIG	Centralized Accident Investigation, Ground
CFR	Code of Federal Regulation
CID	Criminal Investigation Division
CME	courtesy marine examination
CP	career program
CPR	cardiopulmonary resuscitation
CSO	Command Safety Office
DA	Department of the Army
DAESC	Department of the Army Explosives Safety Council
DARA	Department of the Army authorization
DASAF	Director of Army Safety
DCSBOS	Deputy Chief of Staff for Base Operations Support
DCSCD	Deputy Chief of Staff for Combat Developments

DCSDOC Deputy Chief of Staff for Doctrine
DCST Deputy Chief of Staff for Training
DDC Defensive Driving Course
DDESB Department of Defense Explosives Safety
Board
DIS Directorate of Installation Support
DOD Department of Defense
DODAC Department of Defense Ammunition Code
DODI Department of Defense instruction
DTLOM doctrine, training, leader development,
organizational design, and materiel
ECOD estimated cost of damage
EEI essential elements of information
EOC Emergency Operations Center
EOC explosive ordnance disposal
FECA Federal Employees' Compensation Act
FOD foreign object damage
FTX field training exercise
GSA General Services Administration
HAZCOM hazardous communication
HW hazardous waste
IAW in accordance with
IBSM installation/branch safety manager
IBSO installation/branch safety officer
IET initial entry training
LBE load bearing equipment
LRPO local radiation protection officer
LSAT leader safety awareness training
MACOM major Army command
MDI military disabling injuries
MOPP mission-oriented protection posture
MP military police
MPH miles per hour
MSC major subordinate command
MTOE modification table of organization and
equipment
NAF nonappropriated fund
NATO North Atlantic Treaty Organization
NCOIC noncommissioned officer in charge
NRC Nuclear Regulatory Commission
NVG night vision goggles
OIC officer in charge
OSHA Occupational Safety and Health Act

PAO public affairs office(r)
 PFD personal flotation device
 PMCS preventive maintenance check and service
 POC point of contact
 POV privately owned vehicle
 PROFS professional office system
 QASAS quality assurance specialist of ammunition
 surveillance
 Q-D quantity-distance
 RAC risk assessment code
 RMCP Radioactive Material Control Point
 ROSA report of serious accident
 RPO radiation protection officer
 SASOH Standard Army Safety and Occupational
 Health
 SAT systems approach to training
 SIR serious incident report
 SJA Staff Judge Advocate
 SOP standing operating procedure
 SSRA system safety risk assessment
 TDA table of distribution and allowance
 TDY temporary duty
 TECOM U.S. Army Test and Evaluation Command
 TM technical manual
 TRADOC U.S. Army Training and Doctrine Command
 USADACS U.S. Army Defense Ammunition Center
 and School
 USAOMMCS U.S. Army Ordnance Missile and
 Munitions Center and School
 USASC U.S. Army Safety Center
 USATCES U.S. Army Technical Center for
 Explosives Safety
 UXO unexploded ordnance

Section II

Terms

Bodies of water

All streams, rivers, lakes, oceans, ponds, and swimming pools used for water operations and water recreational activities.

Branch proponent

The service school that has primary responsibility for developing concepts, doctrine, tactics, training, techniques, procedures, organizational designs, and materiel requirement for a particular branch in the Army.

Branch safety proponentcy

School commandants are the safety officer for their branch, responsible for integrating safety into the development and employment of service school products (i.e., DTLOM) and monitoring safety performance of branch units and proponent materiel systems worldwide.

Calm water

Water moving at 5 feet per second or less.

Manpower and personnel integration (MANPRINT)

A comprehensive management and technical program to enhance human performance and reliability in the operation, maintenance, and use of weapon systems and equipment. MANPRINT achieves this objective by integrating the full range of human factors engineering, manpower, personnel, training, system safety, and health hazard considerations into the materiel development.

Residual hazard

A hazard that has not been eliminated by design.

Residual risk

Expected loss from a residual hazard. The risk remaining after one or more cycles of risk reduction efforts.

Risk

An expected loss or danger resulting from a hazard. Risk is expressed in terms of estimated severity and probability of injury or damage. Over time, uncontrolled HIGH level risks will produce high levels of loss.

Risk acceptance

A formal or implied decision to accept the consequences of a risk based on a risk assessment.

Risk assessment

Evaluation of expected consequences of a risk against the benefits to be gained from accepting the risk.

Risk management

Making tradeoff decisions between potential/expected loss/injury versus the mission benefit of accepting the residual risk. Risk management supports the commander's overall estimate and decision making process. The objective is to accomplish the mission safely by identifying and eliminating unnecessary risk.

Rough water

Water moving at more than 5 feet per second, or a sea state of III on the Beaufort Scale.

Safety assessment report

A formal, comprehensive summary of the safety data collected during the design and development of a system. It includes the hazard potential of the item, provides risk assessments, and recommends procedures or other corrective actions to reduce the exposure or consequences of these hazards.

Safety awareness

A consciousness of hazards and the knowledge to avoid them or minimize their effect. Safety awareness training gives leaders the knowledge and motivation to accomplish the mission while not unnecessarily jeopardizing the lives of personnel or readiness of equipment. Safety awareness leads to a proactive approach that uses risk management to evaluate the risks and eliminate those with inadequate benefits.

Essential elements of information (EEI)

Key questions, facts, performance indicators, issues, and areas used to identify and focus on significant safety problems, trends, and safety-enhancing innovations associated with branch unit safety performance, safe use of branch products, and other products used by branch units. Safety EEIs should cover soldiers, leaders, equipment, organization, training, and doctrine.

Safety lesson learned

A safety- or health-related warning, based on experience, that can be applied to current and future operations and systems to prevent recurrence of the hazard.

System safety risk assessment (SSRA)

A document that comprehensively evaluates the residual risks of an operation, activity, or materiel system and documents their acceptance by the materiel developer and combat developer.

Systems approach to training (SAT)

TRADOC's process to develop training or instructional systems which consists of five interrelated phases: analysis, design, development, implementation, and evaluation.

Water recreational activities

Activities such as boating, surfing, windsurfing, water skiing, scuba diving, fishing, wading, swimming, snorkeling, and sailing.

Water operations

Tactical water crossings by vehicle, boat, pontoon bridge, raft, foot, and overwater operations.

FOR THE COMMANDER:

OFFICIAL:

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